

Co-Relation Between Psychological Stress and Immunity

Shrihari TG*

Professor, Department of Oral Medicine and Oral Oncology, Krishna Devaraya College of Dental Sciences and Hospital, Bangalore, Karnataka, India

***Corresponding Author:** Shrihari TG, Professor, Department of Oral Medicine and Oral Oncology, Krishna Devaraya College of Dental Sciences and Hospital, Bangalore, Karnataka, India.

Received: February 16, 2023; **Published:** May 19, 2023

Psychological stress is a part of life. If it aggravated chronically cause various cellular changes by releasing CRH activates HPA-axis through ANS (sympathetic nervous system) release stress releasing hormones such as cortisol, noradrenaline, ACTH and adrenalin. These stress releasing hormones activates inflammatory mediators such as IL-1, TNF-alfa, EGF and IL-6 activates NF-KB, a key ubiquitous transcription factor aggravated chronically, dysregulated NF-KB transcription factor induced transcription of inflammatory mediators such as IL-3, IL-4, IL-5, IL-10, IL-13, IL-15, TGF-Beta and IL-17 involved in immune modulation, tissue injury and tissue damage are the cause for many diseases such as autoimmune diseases, cancer, neurological diseases, and infectious diseases.

Normally NF-KB, a ubiquitous transcription factor present in cytosol of an every cell in an inactive form by ikb. When it is activated migration of NF-KB, a key transcription factor from cytosol to nuclear DNA, where it binds with DNA of a cell results in transcription of inflammatory mediators. NF-KB transcription factor involved in development, maturation and proliferation of innate and adaptive immune cells in innate and adaptive immunity.

Thorough understanding of NF-kB transcription factor and its action in development of immunity and dysregulated NF-kB, a key transcription factor on immune cells and effect of psychological stress on NF-kB and immunity helps in cell based therapies, cancer biomarkers, prognostic and therapeutic marker in inflammation; immunity; cancer. Understanding of effect of psychological stress on immunity and diseases helps in preventive and therapeutic strategies.

Volume 12 Issue 5 May 2023

©All rights reserved by Shrihari TG.